

## COMPETITION – SIH 2022

Student name&Roll no: PRADEEP M – 201CS244

Department : CSE

BIP ID of the activity : 731

Event Type : COMPETITION-SMART INDIA HACKATHON 2022

Level of Event : NATIONAL

Organizer : MINISTRY OF EDUCATION –GOVERNMENT OF INDIA

No. of Stages : 3

Achievement : PARTICIPATED

- SUMMARY OF WORK DONE:

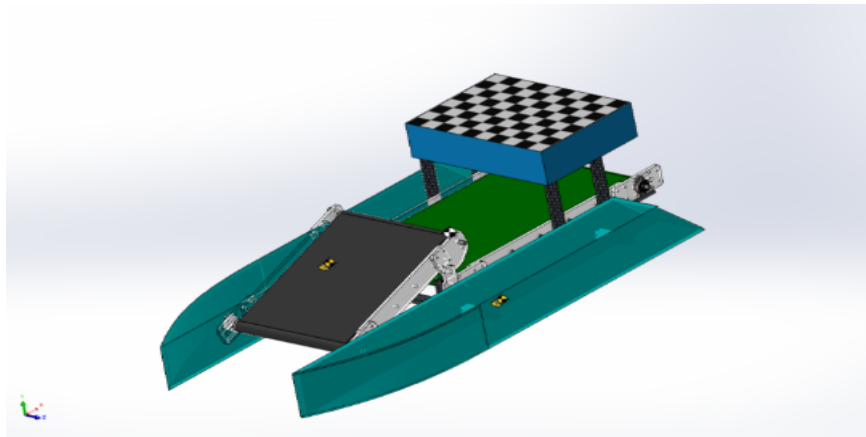
We designed an AI enabled robotic trash boat to drive and harvest floating trash from urban drains which provides weight and type of harvested trash, location, Geo tagged photograph, controlled by mobile application, live operational monitoring.

- DETAILED DESCRIPTION OF WORK DONE:  
WORKING:

<https://drive.google.com/file/d/15JfNuPMgceqb0IputbnwqSBP62sebgCG/view>

V - shaped hull design (made of foam) is used because it provides smoother ride through choppy water, our boat consists of two conveyors, Inclined conveyor is used to collect the trash, whereas flat conveyor stores the trash, conveyors are controlled using Arduino microcontroller connected with two DC motors, driver and the battery. IR beam sensor is used to detect the trash level, which is the indication for us to stop the conveyor movement and dump the waste onto seashores. The boat is controlled both automatically using AI algorithm (SSD) and manually using SkyDroid T12 remote controller.

## COMPLETE BOAT MODEL:



- OUTCOMES ATTAINED:

With the help of the conveyors the floating trash are collected and stored  
Won SIH 2022 – BV800 Artificial Intelligence Enabled Aqua Scooper Robot.